



# Australian Bureau of Statistics

## 6227.0.30.001 - Microdata: Education and Work, May 2016

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## Summary

### Introduction

**This document was added or updated on 11/01/2019.**

### INTRODUCTION

This product provides a range of information about the release of microdata from the 2016 Survey of Education and Work (SEW), including details about the survey methodology and how to use the microdata products; TableBuilder and DataLab. A data item list and information on the conditions of use and the quality of the microdata, as well as the definitions used, are also provided. TableBuilder is an online tool for creating tables and graphs. The DataLab enables approved users to access microdata for in-depth analysis using a range of statistical software packages.

Microdata are the most detailed information available from a survey and are generally the responses to individual questions on the questionnaire or data derived from two or more questions.

The SEW is conducted in May each year throughout Australia and is designed to provide annual statistics about the educational activity and qualifications of the population.

Further information about this product, and other information to assist users in understanding and accessing microdata in general, is available from the Microdata Entry Page. Before applying for access, users should read and familiarise themselves with the information contained in the User Manual: TableBuilder.

### APPLYING FOR ACCESS

To apply for access to TableBuilder, register and apply in the Registration Centre.

To apply for access to the DataLab, see About the DataLab for information on which organisations may apply for access to detailed microdata and contact [microdata.access@abs.gov.au](mailto:microdata.access@abs.gov.au) with your name, organisation and microdata file you are interested in accessing.

Further information on access steps can be found in [How to Apply for Microdata](#).

### FURTHER INFORMATION

Further information about the survey and the microdata can be found in the various pages associated with this product, including:

- Detailed lists of data items for the 2016 SEW TableBuilder and the DataLab are available in the Downloads tab.
- The Quality Declaration and Abbreviations in the Explanatory Notes tab.
- Other related products on the Related Information tab.

## **SUPPORT**

For further support in the use of this product, please contact Microdata Access Strategies on 02 6252 7714 or via [microdata.access@abs.gov.au](mailto:microdata.access@abs.gov.au).

## **DATA AVAILABLE ON REQUEST**

Data collected in the survey but not included in TableBuilder may be available from the ABS, on request, as statistics in tabulated form.

Subject to confidentiality and sampling variability constraints, special tabulations can be produced incorporating data items, populations and geographic areas selected to meet individual requirements. These are available, on request, on a fee for service basis. Contact the National Information and Referral Service on 1300 135 070 or [client.services@abs.gov.au](mailto:client.services@abs.gov.au) for further information.

## **PRIVACY**

The ABS Privacy Policy outlines how the ABS handles any personal information that you provide to us.

# **Survey Methodology**

## **SURVEY METHODOLOGY**

General information about the 2016 Survey of Education and Work, including summary results, are available in the publication Education and Work, Australia, May 2016 (cat. no. 6227.0).

Detailed information about the survey including scope and coverage, survey design, data collection methodology, weighting, estimation and benchmarking, estimate reliability and a glossary can be accessed from the Explanatory Notes page of that publication. All published summary tables, in Excel spreadsheet format, can be accessed from the Downloads page.

# **File structure and content**

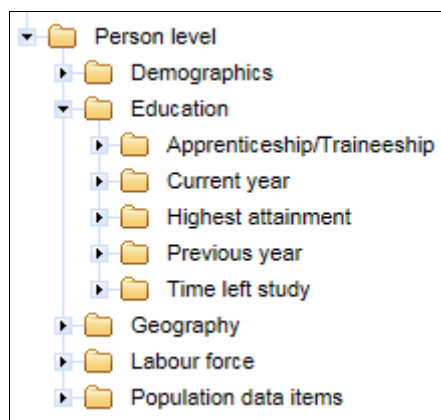
# FILE STRUCTURE AND CONTENT

## FILE STRUCTURE

The 2016 Survey of Education and Work (SEW) TableBuilder is structured as a single person level file. This person level includes general demographic information about each survey respondent such as their age, sex, country of birth and labour force status, as well as details about their qualifications and other recent educational activity.

When tabulating data from TableBuilder, person weights are automatically applied to the underlying sample counts to provide the survey's population estimates.

The data items included in the 2016 SEW TableBuilder are grouped under broad headings and subheadings as shown in the image below. A complete data item list can be accessed from the Downloads page.



## FILE CONTENT

### Not Applicable Categories

Most data items included in the TableBuilder file include a 'Not applicable' category. The classification values of these 'Not applicable' categories, where relevant, are shown in the data item list in the Downloads tab. The 'Not applicable' category generally represents the number of people who were not asked a particular question or the number of people excluded from the population for a data item when that data was derived (e.g. Year of Arrival in Australia is not applicable for people born in Australia).

### Table Populations

The population relevant to each data item is identified in the data item list and should be kept in mind when extracting and analysing data. The actual population estimate for each data item is equal to the total cumulative frequency minus the 'Not applicable' category.

Generally, all populations, including very specific populations, can be 'filtered' using other relevant data items. For example, if the population of interest is 'Employed persons', any data item with that population (excluding the 'Not applicable' category) could be used. While any applicable data item can be used for this filtering process, the SEW TableBuilder also includes some data items that have been specifically derived for this purpose. For example, the population data item 'P07. Persons aged 15–24 years' can be used to filter this population rather than the actual age group data item. The specifically derived population

data items are listed in the data item list and are included in the 'Population data items' folder in the TableBuilder product.

The purpose of the population data item 'P16. Non-Indigenous flag' is to assist users in producing non-Indigenous data only. It should not be used to estimate for the Indigenous population through differencing, as the scope of the SEW excludes persons living in Indigenous communities.

## Using TableBuilder

### USING TABLEBUILDER

For general information relating to TableBuilder and instructions on how to use the features of the TableBuilder product, please refer to the User Manual: TableBuilder (cat. no. 1406.0.55.005).

More specific information applicable to this 2016 Survey of Education and Work (SEW) TableBuilder product, which should enable users to understand, interpret and tabulate the data, is outlined below.

### COUNTING UNITS AND WEIGHTS

Weighting is the process of adjusting results from a sample survey to infer results for the total population. To do this, a 'weight' is allocated to each sample unit. The weight is the value that indicates how many population units are represented by the sample unit.

As the format of the SEW TableBuilder file is at the person level, there is only one weight provided - a person weight. That is, all tables produced provide estimates of the number of people with particular characteristics. The **Summation Options** section in the **Customise Table** panel in TableBuilder contains this weight. As there is only one weight available the person weights will be automatically applied when producing tables.

### CONTINUOUS DATA ITEMS

TableBuilder includes a number of continuous variables which can have a response value at any point along a continuum. Some continuous data items are allocated special codes for certain responses (e.g. 000 = 'Not applicable'). When creating ranges in TableBuilder for such continuous items, special codes will automatically be excluded. Therefore, the total will show only 'valid responses' rather than all responses (including special codes). Continuous items with special codes have a corresponding categorical item on the Person level that provides the ability to display data for the special code. Any special codes for continuous data items are listed in the Data Item List.

### ADJUSTMENT OF CELL VALUES

To minimise the risk of identifying individuals in aggregate statistics, a technique is used to randomly adjust cell values. This technique is called perturbation. Perturbation involves small random adjustment of the statistics and is considered the most satisfactory technique

for avoiding the release of identifiable statistics while maximising the range of information that can be released. These adjustments have a negligible impact on the underlying pattern of the statistics. After perturbation, a given published cell value will be consistent across all tables. However, adding up cell values to derive a total will not necessarily give the same result as published totals. The introduction of perturbation in publications ensures that these statistics are consistent with statistics released via services such as TableBuilder. For SEW, perturbation was introduced in 2014.

## Data item list

### DATA ITEM LIST

A complete list of the data items available for use, including relevant population and classification details, can be found in the Excel spreadsheet in the Downloads tab.

The data item list spreadsheet comprises various worksheets including detail on the following topics:

- Contents
- Demographics
- Geography
- Labour force characteristics
- Education in current year
- Highest educational attainment
- Education in previous year
- Time left study
- Apprenticeships/traineeships in current year
- Unmet demand for apprenticeships/traineeships
- List of population data items.

The 'Population data items' worksheet includes those data items that have been specifically derived to enable easy filtering for particular population groups. For example, the population data item 'P07. Persons aged 15-24 years' can be used to filter this specific population in tables rather than using the actual age group data item.

Users intending to purchase the 2016 SEW TableBuilder should ensure that the data they require, and the level of detail needed, are available and applicable for the intended use.

## Conditions of use

**This document was added or updated on 11/01/2019.**

### CONDITIONS OF USE

### USER RESPONSIBILITIES

The Census and Statistics Act 1905 includes a legislative guarantee to respondents that their confidentiality will be protected. This is fundamental to the trust the Australian public has in the ABS, and that trust is in turn fundamental to the excellent quality of ABS information. Without that trust, survey respondents may be less forthcoming or truthful in answering our questionnaires. For more information, see 'Avoiding inadvertent disclosure' and 'Microdata' on our web page [How the ABS keeps your information confidential](#).

The release of microdata must satisfy the ABS legislative obligation to release information in a manner that is not likely to enable the identification of a particular person or organisation. Therefore, in accordance with the Census and Statistics Act, a confidentiality process is applied to microdata to avoid releasing information that may lead to the identification of individuals, families, households, dwellings or businesses.

Prior to being granted access to TableBuilder users must agree to the following ABS Terms and Conditions of TableBuilder Access.

Prior to using the DataLab users must agree to and sign an Undertaking and a Declaration of Compliance. For more information on the DataLab, please refer to the [About the DataLab](#) page on the ABS Website.

## **CONDITIONS OF SALE**

All ABS products and services are provided subject to the ABS Conditions of Sale. Any queries relating to these Conditions of Sale should be emailed to [intermediary.management@abs.gov.au](mailto:intermediary.management@abs.gov.au).

## **PRICE**

Microdata access is priced according to the ABS Pricing Policy and Commonwealth Cost Recovery Guidelines. For details refer to [ABS Pricing Policy](#) on the ABS website. For microdata prices refer to the [Microdata prices](#) web page.

## **AUSTRALIAN UNIVERSITIES**

The ABS/Universities Australia Agreement provides participating universities with access to a range of ABS products and services. This includes access to microdata. For further information, university clients should refer to the [ABS/Universities Australia Agreement](#) web page.

## **CITATIONS**

Information or data from the Australian Bureau of Statistics must be acknowledged responsibly whenever it is used. Citing, or referencing is important for several reasons, including acknowledging that one has used the ideas, words or data of others. Accurately citing sources used also allows others to find and use the original information. For information on how to cite ABS data refer to [Help: How to cite to ABS Sources](#).

## **FURTHER INFORMATION**

The Microdata Entry Page contains links to microdata related information to assist users in understanding and accessing microdata. For further information users should email [microdata.access@abs.gov.au](mailto:microdata.access@abs.gov.au) or telephone (02) 6252 7714.

## **PRIVACY**

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## **Using the DataLab**

**This document was added or updated on 09/01/2019.**

### **USING THE DATALAB**

The DataLab is an interactive data analysis solution available for users to run advanced statistical analyses, for example, multiple regressions and structural equation modelling. The DataLab environment contains up-to-date versions of SPSS, Stata, SAS and R analytical languages. Controls in the DataLab have been put in place to protect the identification of individuals and organisations. These controls include environmental protections, data de-identification and confidentialisation, access safe guards and output clearance. All output from DataLab sessions is cleared by an ABS officer before it is released.

For more information about the DataLab, please see the Microdata Entry Page.

## **DataLab test file**

**This document was added or updated on 09/01/2019.**

### **DATALAB TEST FILE**

A Test File has been created to enable researchers and analysts to become more familiar with the data structure and prepare code and programs prior to applying for, or commencing, a DataLab session. This aims to maximise the value of sessions by saving users time and resources once they enter the DataLab environment.

The Test File does not contain real data, and cannot be used for analysis. It mimics the structure of the microdata from the Collection as it has the same data items and allowed values. All data on the file is false, created through a randomisation process. Proportions of values within data items in the Test File will be similar to those in the real data, however, relationships between data items will not be intentionally maintained. It is extremely unlikely that a record in the Test File would match with a genuine record in the real data.

The Test File is available as a free download through the Downloads tab. For further

information users should email [microdata.access@abs.gov.au](mailto:microdata.access@abs.gov.au) or telephone (02) 6252 7714.

## About this Release

The following microdata product is available from the Survey of Education and Work, 2016.  
- TableBuilder

To apply for access to TableBuilder, register and apply in the Registration Centre.

This product provides data on labour force characteristics, participation in study in current and previous year, type of educational institution, level of education of study in current and previous year, highest year of school completed, level of highest non-school qualification, level of highest educational attainment, and selected characteristics of apprentices and trainees. A detailed list of data items is available on the Downloads tab.

The microdata enables users to tabulate, manipulate and analyse data. Steps to confidentialise the dataset are taken to ensure the integrity of data and maintain confidentiality of the respondents. This includes removing any information that might uniquely identify an individual, reducing the level of detail for some items and collapsing some categories.

Approved users can combine information on educational attainment with labour force characteristics to enable analysis of transitions from education to work.

## History of Changes

**This document was added or updated on 09/01/2019.**

**11/01/2019** The DataLab product was released on 9/1/19. The Introduction, Conditions of Use and Explanatory Notes pages have been updated to reflect this change.

**09/01/2019** The DataLab product has been released. The 'DataLab Test file' page has been created to provide information about the test file. The DataLab data item list and DataLab test file have been added to the Downloads tab.

## Explanatory Notes

### Abbreviations

#### ABBREVIATIONS

ABS	Australian Bureau of Statistics
ABSCQ	Australian Bureau of Statistics Classification of Qualifications
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification



ASCED	Australian Standard Classification of Education
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification of All Economic Activities
LFS	Labour Force Survey
n.f.d.	not further defined
RSE	relative standard error
SA1	Statistical Area Level 1
SA2	Statistical Area Level 2
SA4	Statistical Area Level 4
SACC	Standard Australian Classification of Countries
SEW	Survey of Education and Work
TAFE	Technical and Further Education
VET	Vocational Education and Training

## Quality Declaration - Summary

**This document was added or updated on 11/01/2019.**

### QUALITY DECLARATION - SUMMARY

#### INSTITUTIONAL ENVIRONMENT

The Survey of Education and Work (SEW) is conducted in May each year throughout Australia as part of the Australian Bureau of Statistics (ABS) household survey program. For information on the institutional environment of the ABS, including its legislative obligations, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

Microdata files are released in accordance with the conditions specified in the Statistics Determination section of the Census and Statistics Act 1905 (CSA). This ensures that confidentiality is maintained whilst enabling micro level data to be released using methods and systems that protect the confidentiality of people, households, and businesses. For more information about confidentiality, see the ABS Confidentiality Series and How ABS keeps your information confidential.

#### RELEVANCE

The SEW provides information for a range of key indicators relating to the educational participation and attainment of persons aged 15 to 74 years, along with data on their transition between education and work.

The type of information collected includes: general demographic and labour force characteristics; participation in education in the survey month and in the year prior to the survey; type of educational institution attended; level of education of current and previous study; level and main field of highest non-school qualification; transition from education to work; unmet demand for education; and selected characteristics of apprentices, including unmet demand for apprenticeships and traineeships.

The Australian Standard Classification of Education (ASCED) (cat. no. 1272.0) is used to classify the Level and Field of education. The ASCED is a national standard classification which can be applied to all sectors of the Australian education system including schools, vocational education and training and higher education.

As SEW is collected as a supplement to the Labour Force Survey (LFS), persons excluded from the LFS are also excluded from this survey (see Explanatory Notes in Labour Force, Australia (cat. no. 6202.0) for standard LFS exclusions). Additional exclusions from SEW are persons aged 75 years or older, institutionalised persons, boarding school pupils and persons in Indigenous Communities. Persons permanently unable to work and persons aged 65 to 74 years who are not intending to work, or not in the labour force, or not marginally attached to the labour force, were included for the first time in 2013.

## **TIMELINESS**

The ABS has been conducting similar education and work surveys since 1964. These surveys were conducted annually, in February, from 1964 to 1974, in May 1975 and 1976, in August 1977 and 1978 and annually, in May, since 1979. Data from the survey are released approximately six months after they have been collected.

## **ACCURACY**

The microdata generally contains finer levels of detail for data items than what is otherwise published in other formats, for example, in Education and Work, Australia, May 2016 (cat. no. 6227.0). For information on the level of detail provided, please refer to the data item list in the Downloads tab.

Steps to confidentialise the data made available in TableBuilder and the DataLab are taken in such a way as to maximise the usefulness of the content while maintaining the confidentiality of respondents selected in the survey. As a result, it may not be possible to exactly reconcile all the statistics produced from TableBuilder or the DataLab with other published statistics. Further information about the steps taken to confidentialise the microdata is available in How the ABS keeps your information confidential. More information on the confidentiality practices associated with microdata from the DataLab can be found on the Using the DataLab page.

## **COHERENCE**

The ABS seeks to maximise consistency and comparability over time by minimising changes to its surveys. However, sound survey practice requires ongoing development and maintenance to maintain the integrity of the data and the efficiency of collection. For changes between iterations of the survey, please refer to the Data Comparability section in the Explanatory Notes of Education and Work, Australia, May 2016 (cat. no. 6227.0).

After each Census, population estimates are normally revised back five years to the previous Census year. As announced in the June 2012 issue of Australian Demographic Statistics (cat. no. 3101.0), intercensal error between 2006 and 2011 Censuses was larger than normal due to improved methodologies used in the 2011 Census Post Enumeration Survey. The intercensal error analysis indicated that previous population estimates for the base Census years were over-counted. An indicative estimate of the size of the over-count is that there should have been 240,000 fewer people at June 2006, 130,000 fewer in 2001

and 70,000 fewer in 1996. As a result, Estimated Resident Population estimates have been revised for the past 20 years rather than the usual five.

Consequently, estimates of particular populations derived since SEW 2014 may be lower than those published for the previous years as the SEW estimates have not been revised. Therefore, comparisons of SEW estimates since 2014 with previous years should not be made. However, for comparable data items, comparison of rates or proportions between years is appropriate.

The May 2013 SEW was the first supplementary survey to incorporate the online data collection method, where the option was offered to just over one-quarter of the SEW sample. Since the May 2014 SEW this option has been offered to all respondents. For more information, see the article *Transition to Online Collection of the Labour Force Survey*.

For changes between iterations of the SEW, please refer to the Explanatory Notes. For a full list of changes made to the LFS, see Chapter 20 of *Labour Statistics: Concepts, Sources and Methods, 2013* (cat. no. 6102.0.55.001) and *Information Paper: Forthcoming Changes to Labour Force Statistics, Aug 2015* (cat. no. 6292.0).

## **INTERPRETABILITY**

Detailed information on the terminology, classifications and other technical aspects associated with the SEW can be found in the relevant web pages included with this release.

## **ACCESSIBILITY**

Microdata products are available to approved users. Access can be applied for through the Registration page. Users should also familiarise themselves with information available via the Microdata Entry Page.

A full list of all available microdata can be viewed via the List of expected and available Microdata.

Any queries regarding access to microdata can be forwarded to [microdata.access@abs.gov.au](mailto:microdata.access@abs.gov.au) or phone (02) 6252 7714.

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